

Claims

- [c1] What is claimed is:
A modular, adjustable, portable, easy to maintain food sanitation hood system, comprising:
a hooded means for subjecting food to sanitizers including UV light, ozone and hydroxyl radicals, having:
one or more UV light sources; and
one or more target rods located under the hooded means in optical proximity to the UV light sources.
- [c2] The system of claim 1, wherein the UV radiation sources emit UV light of approximately 185 to 254 nm.
- [c3] The system of claim 2, wherein the UV radiation sources are at least one of the following: low-vapor mercury and high-vapor mercury UV light sources that emit UV light of approximately 185 to 254 nm.
- [c4] The system of claim 1, wherein the hooded means further comprises drainage holes through a top surface.
- [c5] The system of claim 1, wherein the target rods comprise up to approximately up to 0-30% titanium dioxide, up to 0-30% silver and up to 0-30% copper, by weight.
- [c6] The system of claim 1, further comprising a mister for adding mist in proximity to the target rods for the efficient production of hydroxyl radicals.
- [c7] The system of claim 1, wherein hydroxyl radicals are generated in part from the moisture in the ambient air in the proximity of the target rods.
- [c8] The system of claim 1, further comprising at least one mounting tab located on the outer surface of one side of the hooded means.
- [c9] The system of claim 8, further comprising a connector tab connecting at least two mounting tabs on one side of the hooded means.
- [c10] The system of claim 1, further comprising an electrical box attached to the

exterior of one end of the hooded means.

- [c11] The system of claim 10, wherein the electrical box further comprises a removable cover plate.
- [c12] The system of claim 1, wherein the hooded means further comprises a downwardly bent lip.
- [c13] The system of claim 1, further comprising six UV light sources and seven target rods in generally parallel orientation.
- [c14] The system of claim 1, further comprising nine UV light sources and eight target rods in generally parallel orientation.
- [c15] The system of claim 1, wherein the target rods are of modular construction.
- [c16] The system of claim 1, wherein a UV light source is located within an assembly including:
a reflector tube; and
a shield.
- [c17] The system of claim 16, wherein the assembly is of modular construction.
- [c18] The system of claim 17, wherein the target rods and the assemblies are easy to manufacture, maintain and replace.
- [c19] The system of claim 1, further comprising a rigid frame for the hooded means.
- [c20] The system of claim 19, wherein the hooded means includes an adjustable light curtain to at least partially reduce radiation emitted from the UV light sources away from the food.
- [c21] The system of claim 19, further comprising:
a ballast housing; and
a control box located on the frame.
- [c22] The system of claim 19, wherein the frame further comprises wheels.
- [c23] The system of claim 19, further comprising:

an ozone monitor; and
an alarm adapted to go off at a predetermined ozone level.

[c24] The system of claim 19, wherein the frame is adaptable to allow the hooded means to be optimally located in relation to the food.

[c25] A food sanitation hood, comprising:
means for subjecting food to sanitizing radiation;
means for subjecting food to ozone; and
means for subjecting food to hydroxyl radicals;
whereby the food is subjected to the radiation, the ozone and the hydroxyl radicals generally simultaneously.

[c26] The hood of claim 25, wherein the means for subjecting food to sanitizing radiation, the means for subjecting food to ozone and the means for subjecting food to hydroxyl radicals includes:
one or more sanitizing radiation sources located in an assembly; and
one or more target rods in optical proximity to the assemblies.

[c27] The hood of claim 26, wherein the assemblies and the target rods are modular in construction.

[c28] The hood of claim 27, wherein the assemblies and the target rods are easy-to-clean and easy-to-maintain.

[c29] The hood of claim 25, wherein the hood is generally portable.

[c30] The hood of claim 29, further comprising:
means for attaching the hood to a fixed point on an assembly line.

[c31] A method for sanitizing food utilizing a modular, adjustable, portable, easy-to-maintain hood system, comprising the exposing of a food surface simultaneously to UV light, ozone, and hydroxyl radicals.